| TITLE | DATE* |
|---|---|
| CONCRETE STEPS | 02-10 |
| CONCRETE PAVEMENT REPLACEMENT (FULL DEPTH) | 02-10 |
| REINFORCED CONC. PAVEMENT FOR PRESSURE RELIEF JOINT | 02-10 |
| SIDEWALK RAMPS SHEET 1 | 06-14 |
| SIDEWALK RAMPS SHEET 2 | 06-14 |
| SIDEWALK RAMPS SHEET 3 | 06-14 |
| SIDEWALK RAMPS SHEET 4 | 06-14 |

| TITLE | DATE* |
|---|---|

*REVISED OR ADDED

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| 1 | 6/1/10 | Removed Sedimentation Control Sheets and archived them. | |
| 2 | 10/10 | Converted all railing sheets and barrier sheets to standards sheets. | |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 10/14/2010

NOT TO SCALE

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

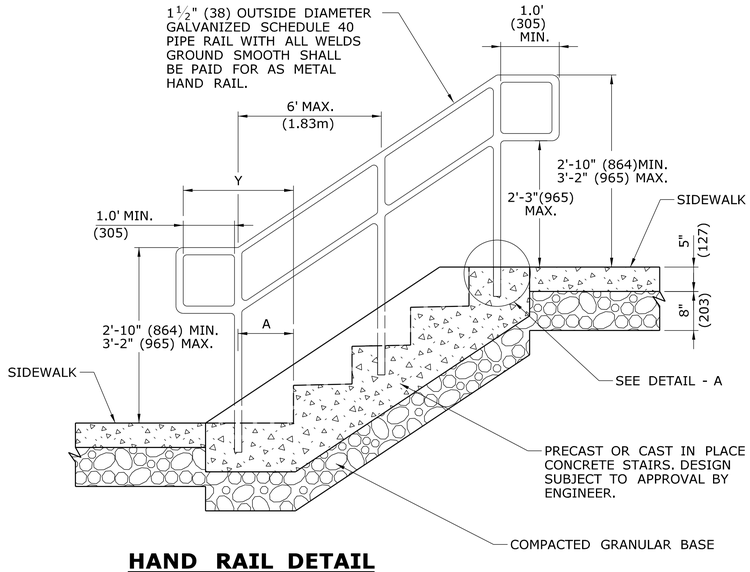
Filename: CTDOT_GUIDE_SHEETS_OCT2010.dgn Model: 1-HW-GDS_INDEX

**OFFICE OF ENGINEERING**

# HIGHWAYS
# GUIDE SHEET INDEX

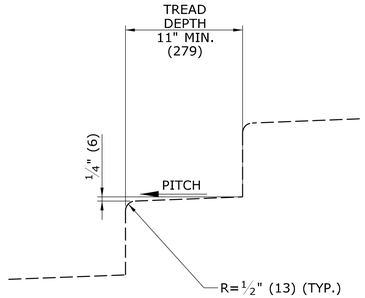
GUIDE SHEET NO.:

**HW-GD_INDEX**



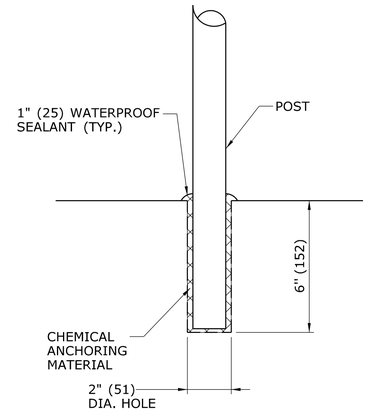

## HAND RAIL DETAIL

A = WIDTH OF ONE TREAD REQUIRED AT EACH BOTTOM RISER.
Y = THE MINIMUM HANDRAIL EXTENSON OF 1'-0" (305) + A.




## TYPICAL STEP DETAIL

ALL TREADS SHALL BE PITCHED ¼" (6) (SEE NOTE 5)




## DETAIL A
## POST HOLE AT LANDINGS

(TYPICAL FOR ALL POSTS)

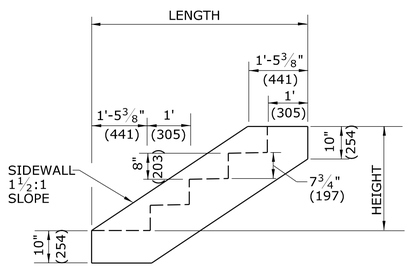
## GENERAL NOTES:

1. A HAND RAIL IS REQUIRED ON BOTH SIDES OF STEPS WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE HIGHEST WALKING SURFACE AND THE LOWEST WALKING SURFACE IS GREATER THAN 30" (762).
2. POSTS SHALL BE NO MORE THAN 6' (1.83m) APART.
3. THE RAILING BASE CONNECTIONS SHALL BE DESIGNED TO PROVIDE STRENGTH FOR A 251.8 POUND (114.2kg) FORCE APPLIED IN ANY LOCATION OR DIRECTION ON THE RAIL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STEEL POSTS AND HANDRAIL ELEMENTS INCLUDING A LAYOUT FOR REVIEW AND APPROVAL.
5. ALL STEPS SHALL HAVE UNIFORM RISER HEIGHTS AND UNIFORM TREAD DEPTHS. RISERS SHALL BE A MINIMUM OF 4" (102) HIGH TO A MAXIMUM OF 7" (178) HIGH. TREADS SHALL BE A MINIMUM OF 11" (279) DEEP MEASURED FROM RISER TO RISER.
6. THESE DETAILS WERE DEVELOPED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) HANDBOOK DATED 1998 AND 2000.

| STEPS CONFORMING TO 1½:1 SLOPE | | | | | | | |
|---|---|---|---|---|---|---|---|
| HEIGHT | LENGTH | NUMBER RISERS | VOLUME OF STEPS (CU.YDS.) ($m^3$) | HEIGHT | LENGTH | NUMBER RISERS | VOLUME OF STEPS (CU.YDS.) ($m^3$) |
| 0'-8" (203) | 2'-5 3/8" (746) | 1 | 0.474 (0.436) | 6'-0" (1829) | 10'-5 3/8" (3186) | 9 | 2.564 2.316 |
| 1'-4" (406) | 3'-5 3/8" (1051) | 2 | 0.718 (0.671) | 6'-8" (2032) | 11'-5 3/8" (3489) | 10 | 2.831 (2.551) |
| 2'-0" (610) | 4'-5 3/8" (1356) | 3 | 0.962 (0.906) | 7'-4" (2235) | 12'-5 3/8" (3794) | 11 | 3.098 (2.768) |
| 2'-8" (813) | 5'-5 3/8" (1661) | 4 | 1.229 (1.141) | 8'-0" (2438) | 13'-5 3/8" (4101) | 12 | 3.365 (3.021) |
| 3'-4" (1016) | 6'-5 3/8" (1965) | 5 | 1.496 (1.376) | 8'-8" (2642) | 14'-5 3/8" (4404) | 13 | 3.632 (3.256) |
| 4'-0" (1219) | 7'-5 3/8" (2270) | 6 | 1.763 (1.611) | 9'-4" (2845) | 15'-5 3/8" (4709) | 14 | 3.899 (3.491) |
| 4'-8" (1422) | 8'-5 3/8" (2575) | 7 | 2.030 (1.846) | 10'-0" (3048) | 16'-5 3/8" (5013) | 15 | 4.166 (3.726) |
| 5'-4" (1626) | 9'-5 3/8" (2880) | 8 | 2.297 (2.081) | 10'-8" (3251) | 17'-5 3/8" (5318) | 16 | 4.433 (3.961) |

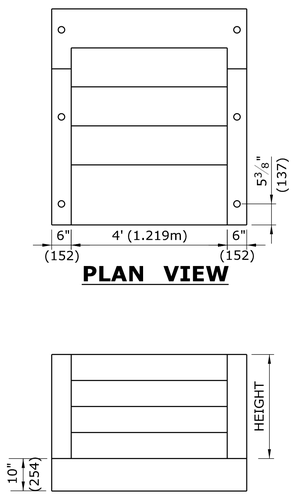
ADD 0.244 CU.YDS. (0.18 CU.MS.) FOR EACH ADDITIONAL RISER

## STEPS WITH 1 1/2 : 1 SIDEWALL SLOPE




## SIDE VIEW

ALL TREADS SHALL BE PITCHED ¼" (6)



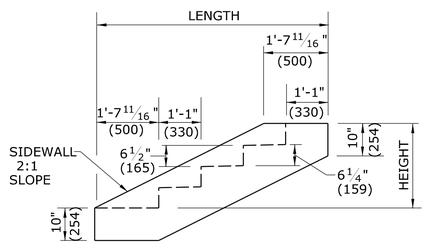

## PLAN VIEW

## FRONT VIEW

| STEPS WITH 2:1 SIDEWALL SLOPE | | | | | | | |
|---|---|---|---|---|---|---|---|
| HEIGHT | LENGTH | NUMBER RISERS | VOLUME OF STEPS (CU.YDS.) ($m^3$) | HEIGHT | LENGTH | NUMBER RISERS | VOLUME OF STEPS (CU.YDS.) ($m^3$) |
| 0'-6½" (165) | 2'-8 11/16" (830) | 1 | 0.494 (0.346) | 4'-10½" (1486) | 11'-4 11/16" (3472) | 9 | 2.580 (2.098) |
| 1'-1" (330) | 3'-9 11/16" (1160) | 2 | 0.736 (0.565) | 5'-5" (1651) | 12'-5 11/16" (3802) | 10 | 2.847 (2.317) |
| 1'-7½" (495) | 4'-10 11/16" (1491) | 3 | 0.978 (0.784) | 5'-11½" (1816) | 13'-6 11/16" (4132) | 11 | 3.114 (2.536) |
| 2'-2" (660) | 5'-11 11/16" (1821) | 4 | 1.245 (1.003) | 6'-6" (1981) | 14'-7 11/16" (4462) | 12 | 3.381 (2.755) |
| 2'-8½" (825) | 7'-0 11/16" (2151) | 5 | 1.512 (1.222) | 7'-0½" (2146) | 15'-8 11/16" (4792) | 13 | 3.648 (2.974) |
| 3'-3" (990) | 8'-1 11/16" (2481) | 6 | 1.779 (1.441) | 7'-7" (2311) | 16'-9 11/16" (5123) | 14 | 3.915 (3.193) |
| 3'-9½" (1156) | 9'-2 11/16" (1811) | 7 | 2.046 (1.660) | 8'-1½" (2476) | 17'-10 11/16" (5453) | 15 | 4.182 (3.412) |
| 4'-4" (1321) | 10'-3 11/16" (3141) | 8 | 2.313 (1.879) | 8'-8" (2642) | 18'-11 11/16" (5783) | 16 | 4.449 (3.631) |

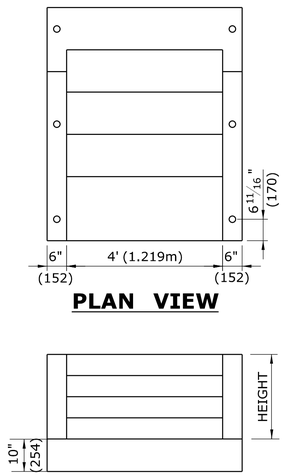
ADD 0.242 CU.YDS. (0.18 CU.MS.) FOR EACH ADDITIONAL RISER

## STEPS WITH 2 : 1 SIDEWALL SLOPE




## SIDE VIEW

ALL TREADS SHALL BE PITCHED ¼" (6)




## PLAN VIEW

## FRONT VIEW

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 10/8/2010

DESIGNER/DRAFTER:

CHECKED BY:

NTS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTDOT_HIGHWAY_GD.dgn

SIGNATURE/ BLOCK:

OFFICE OF ENGINEERING

APPROVED BY: DATE:

PROJECT TITLE:

TOWN:

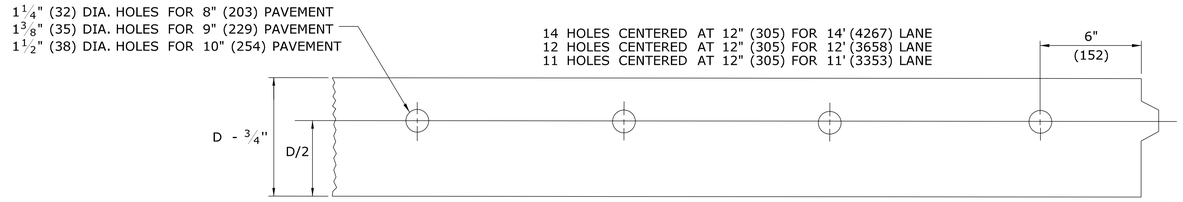
PROJECT NO.

DRAWING NO.

DRAWING TITLE:

CONCRETE STEPS

SHEET NO.



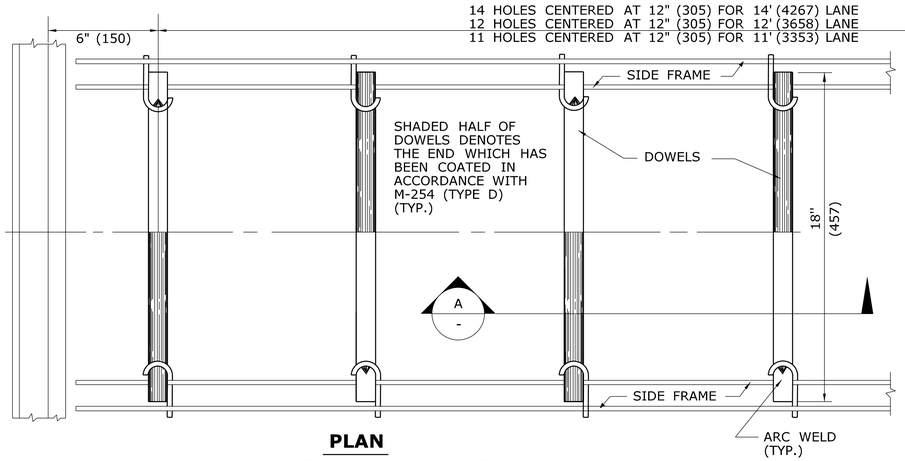

## DETAIL OF JOINT FILLER IN EXPANSION JOINT

## GENERAL NOTES:

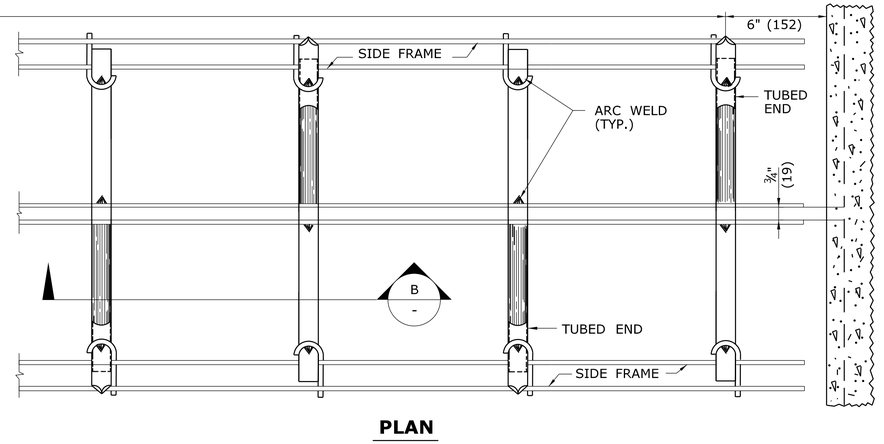
1. MATERIALS FOR SIDE FRAMES AND CENTER SUPPORTS SHALL MEET THE REQUIREMENTS OF AASHTO M-31. ALTERNATE FRAME DESIGN MAY BE APPROVED BY THE ENGINEER.
2. DOWEL BAR DIAMETER SIZES ARE EXCLUSIVE OF COATINGS. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.
3. LENGTH OF LOAD TRANSFER UNIT AND NUMBER OF DOWELS FOR VARIOUS LANE WIDTHS SHALL BE AS FOLLOWS:

| LANE WIDTH | OVERALL LENGTH | NO. OF DOWELLS |
|---|---|---|
| 11'-0" (3353) | 10'-9" (3277) | 11 |
| 12'-0" (3658) | 11'-9" (3581) | 12 |
| 14'-0" (4267) | 13'-6" (4115) | 14 |

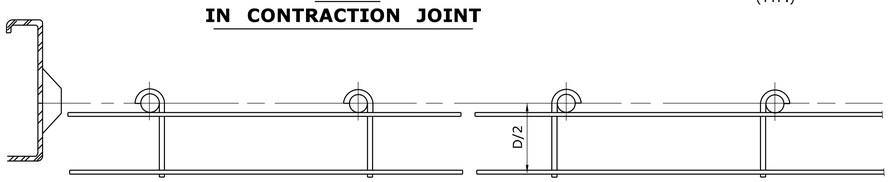
4. D = DEPTH OF PAVEMENT
5. ALL SIDE FRAMES AND CENTER SUPPORTS SHALL BE 1 GAUGE WIRE OR $\frac{5}{16}$" (8) BARS THROUGHOUT.
6. AT FIRST POURING, THE JOINT SEAL MATERIAL SHALL FILL THE JOINT FLUSH WITH THE PAVEMENT SURFACE. AFTER THIS MATERIAL HAS COOLED AND CONTRACTED, THE REMAINING JOINT OPENING SHALL BE FILLED TO WITHIN $\frac{1}{8}$" (3) OF THE PAVEMENT SURFACE.
7. WHEN AN EXISTING TRANSVERSE CONTRACTION OR EXPANSION JOINT FALLS WITHIN THE LIMITS OF THE PATCH, THE CONTRACTION OR EXPANSION JOINT SHALL BE REPLACED WITH A JOINT OF THE SAME TYPE, ALONG THE SAME PLANE AS THE ADJACENT TRANSVERSE JOINTS.
8. WHEN IT IS DETERMINED BY THE ENGINEER THAT A PATCH GREATER THAN 12' (3658) IN LENGTH IS NECESSARY, THE CONTRACTOR SHALL SUBMIT A PLAN FOR THE PROPOSED METHOD OF OPERATIONS FOR APPROVAL BY THE ENGINEER.
9. WHERE DISTRESS IS LIMITED TO ONLY ONE SIDE OF THE TRANSVERSE JOINT, EXTEND PATCH BOUNDARY 3' (914) ON GOOD SIDE OF JOINT TO REMOVE AND REPLACE EXISTING DOWEL BAR SYSTEM.
10. WHERE DISTRESS IN ADJACENT LANES IS SIMILAR, THE PATCH BOUNDARY SHALL BE EXTENDED TO AVOID OFFSETS < 2' (610) BETWEEN PATCHES IN ADJACENT LANES.
11. THE TERMS: CONCRETE PAVEMENT REPLACEMENT FOR ROADWAY (FULL DEPTH), CONCRETE PATCH, AND PATCH SHALL BE USED INTERCHANGEABLY.




## PLAN IN CONTRACTION JOINT

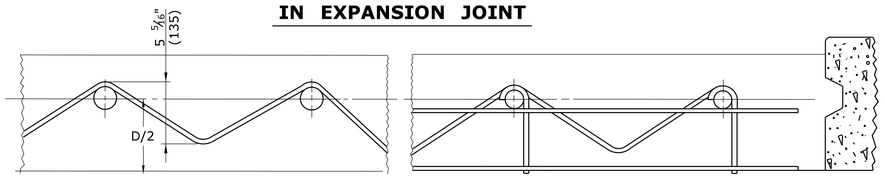



## PLAN IN EXPANSION JOINT



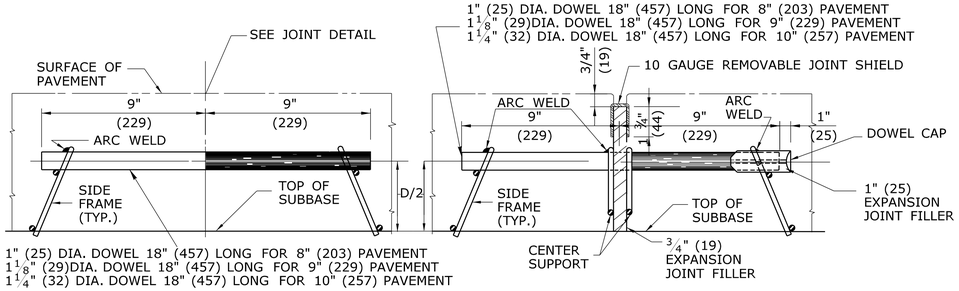

## SIDE VIEW

## SECTION A




## SECTION B

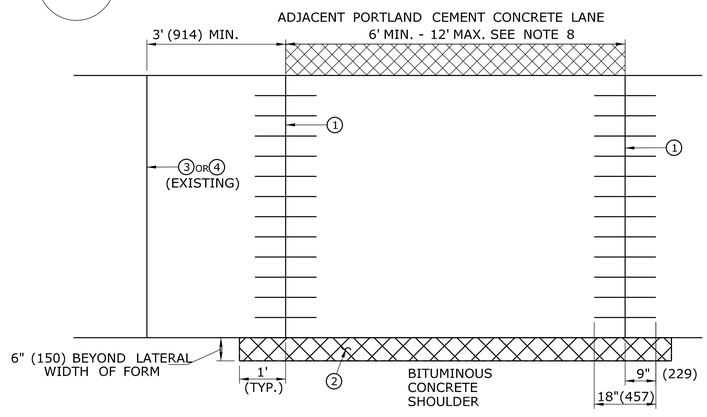
## SIDE VIEW



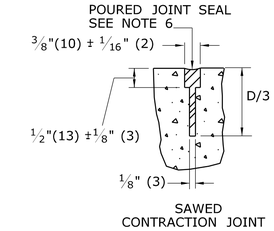

## HALF SIZE SECTION THRU UNIT IN CONTRACTION



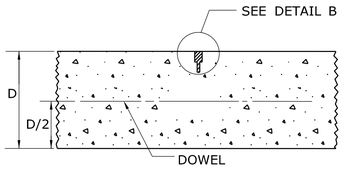

## HALF SIZE SECTION THRU UNIT IN EXPANSION JOINT



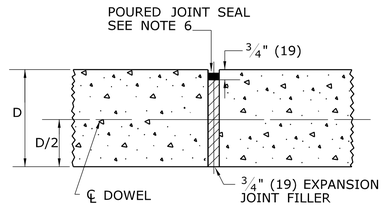

## REPAIR METHOD FOR MID-SLAB DISTRESS (ONE LANE TYPICAL)




## DETAIL B




## SECTION THRU TRANSVERSE CONTRACTION JOINT




## SECTION THRU TRANSVERSE EXPANSION JOINT

### LEGEND:

1. SAW CUT CONCRETE PAVEMENT FULL DEPTH
2. SAW CUT AND REMOVE BITUMINOUS SHOULDER ANDINSTALL FORM
3. TRANSVERSE CONTRACTION JOINT
4. TRANSVERSE EXPANSION JOINT

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 10/8/2010

DESIGNER/DRAFTER:

CHECKED BY:

NTS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTDOT_HIGHWAY_GD.dgn

SIGNATURE/ BLOCK:

OFFICE OF ENGINEERING

APPROVED BY: DATE:

PROJECT TITLE:

TOWN:

PROJECT NO.

DRAWING NO.

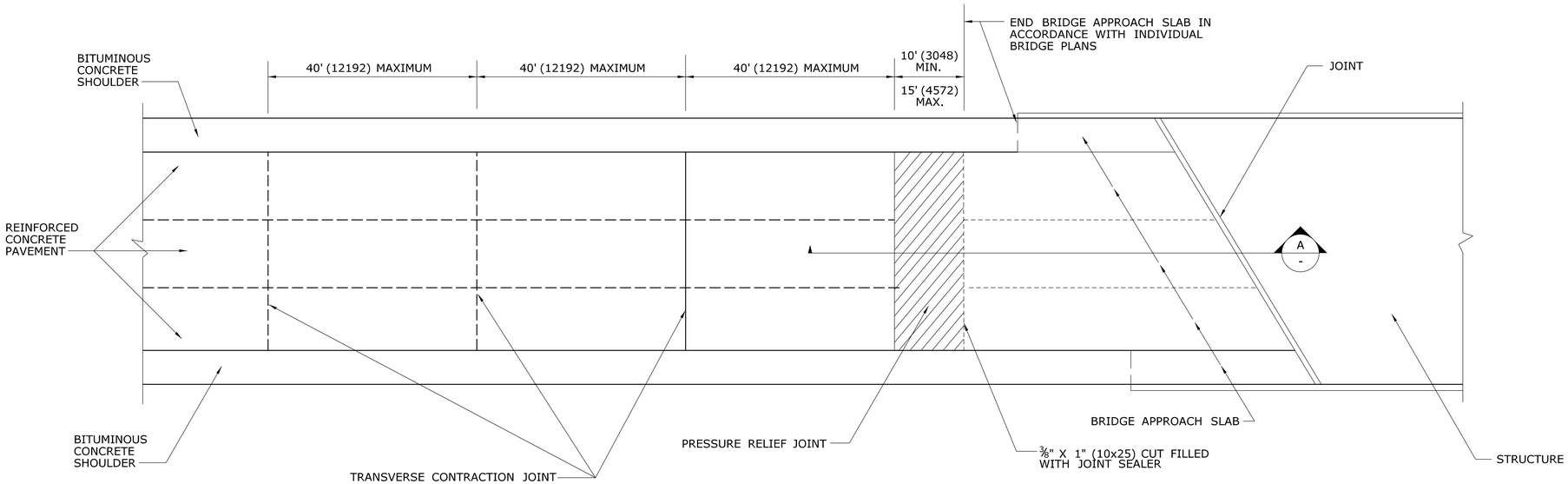
DRAWING TITLE:

CONCRETE PAVEMENT REPLACEMENT (FULL DEPTH)

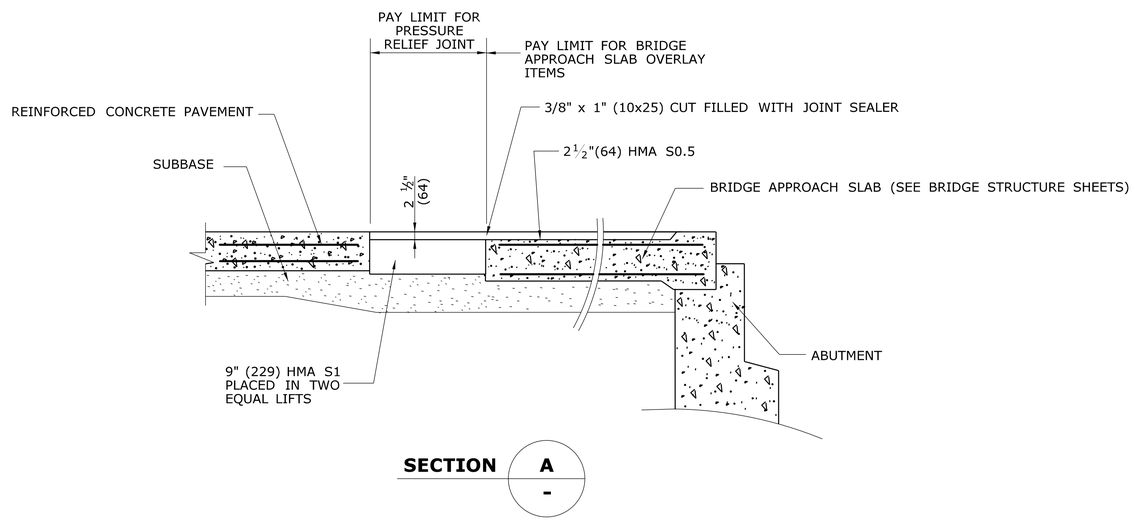
SHEET NO.

## GENERAL NOTES:

1. APPROACH SLABS SHALL BE TREATED OVERALL WITH MATERIAL FOR TACK COAT AND OVERLAID WITH $2\frac{1}{2}$" (64) HMA S0.5.
2. THE COST OF CUT AND JOINT SEALER SHALL BE INCLUDED IN THE PRICE FOR THE PRESSURE RELIEF JOINT.
3. SEE CONSTRUCTION PLANS FOR SUPERPAVE DESIGN LEVELS.




## PLAN AND GENERAL JOINT ARRANGEMENT




**SECTION A -**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 10/8/2010

DESIGNER/DRAFTER:

CHECKED BY:

NTS

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\CTDOT_HIGHWAY_GD.dgn

SIGNATURE/ BLOCK:

**OFFICE OF ENGINEERING**

APPROVED BY: DATE:

PROJECT TITLE:

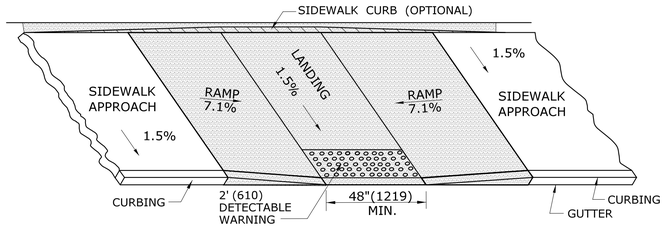
TOWN:

PROJECT NO.

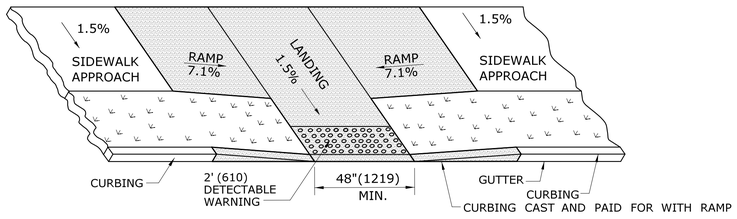
DRAWING NO.

DRAWING TITLE:
**REINFORCED CONC. PAVEMENT FOR PRESSURE RELIEF JOINT**

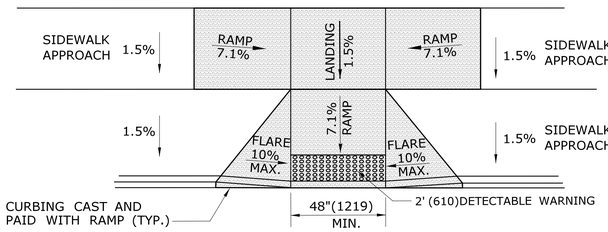
SHEET NO.



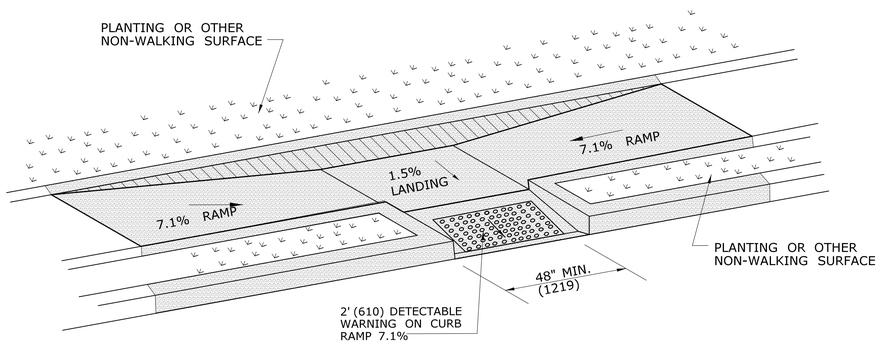

## PARALLEL SIDEWALK RAMP (TYPE 1) NO UTILITY STRIP



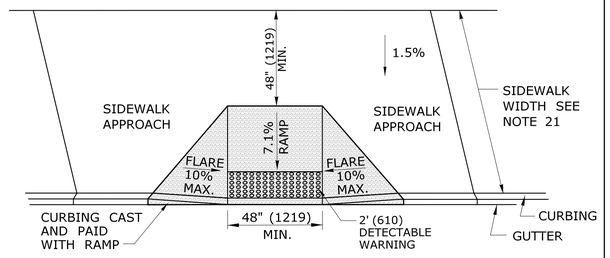

## PARALLEL SIDEWALK RAMP (TYPE 1a) WITH UTILITY / GRASS STRIP



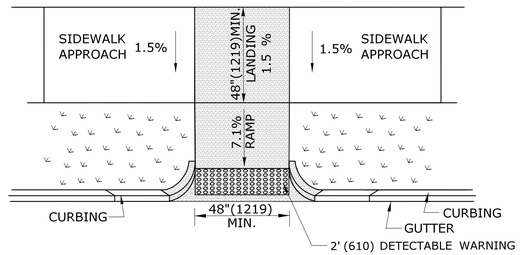

## PARALLEL/PERPENDICULAR SIDEWALK RAMP NO UTILITY/GRASS STRIP (TYPE 1b)




## PARALLEL SIDEWALK RAMP (TYPE 1c) WITH UTILITY / GRASS STRIP

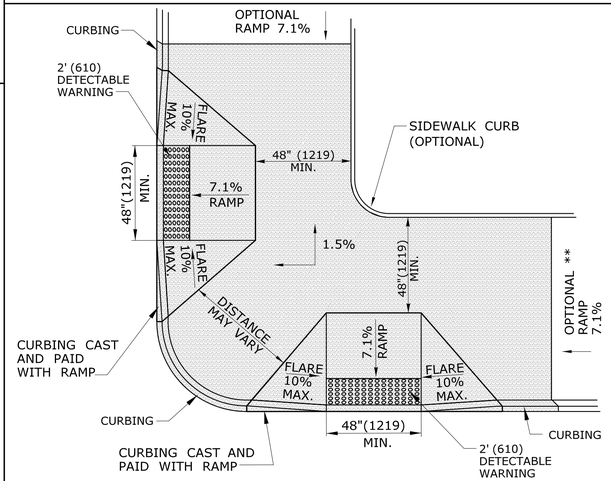



## PERPENDICULAR SIDEWALK RAMP W/ 48" (1219) MIN. BY PASS LANDING (TYPE 2)




## PERPENDICULAR SIDEWALK RAMP W/CURB RETURNS / UTILITY GRASS STRIP (TYPE 2a)

* OPTIONAL FLARE ONE SIDE OF RAMP

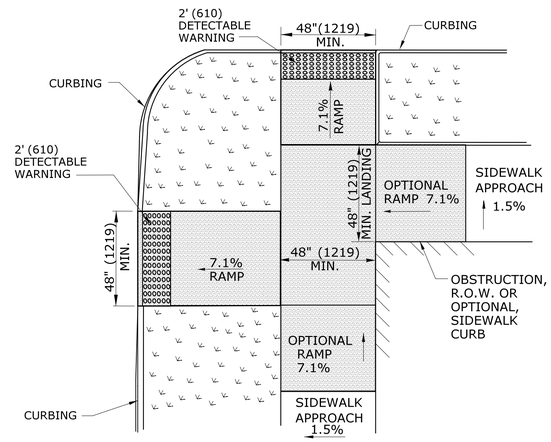



## DUAL PERPENDICULAR SIDEWALK RAMPS (TYPE 3)

SEE NOTES 19

* OPTIONAL CURB RETURN ON ONE SIDE OF RAMP

** SEE NOTE 23




## DUAL PERPENDICULAR SIDEWALK RAMPS (TYPE 3a) WITH UTILITY / GRASS STRIP

SEE NOTE 20

## GENERAL NOTES:

1. MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP SHOULD NOT EXCEED 5%. THE MAXIMUM GRADE DIFFERENCE BETWEEN THE GUTTER AND CURB RAMP SHALL NOT EXCEED 13%. SEE DETAIL 1 ON SHEET 4.
2. RAMP GRADE SHALL BE UNIFORM, FREE OF SAGS AND ABRUPT GRADE CHANGES. RUNNING SLOPES OF RAMPS SHALL NOT EXCEED 8.33% AND SHALL NOT EXCEED 15' (4.5m) WITHOUT PROVIDING A LANDING.
3. ALL RAMPS SHALL BE CONSTRUCTED OF CLASS "F" CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
4. SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE OF ALL SIDEWALK RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. SURFACE DISCONTINUITIES SHALL NOT EXCEED $\frac{1}{2}$" (13) MAX. VERTICAL DISCONTINUITIES BETWEEN $\frac{1}{4}$" (6.4) AND $\frac{1}{2}$" (13) MAX. SHALL BE BEVELED 1:2 MINIMUM APPLIED ACROSS THE ENTIRE LEVEL CHANGE.
5. DIAGONAL SIDEWALK RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES. DIAGONAL AND PERPENDICULAR RAMPS SHALL HAVE THE RAMP CUT PERPENDICULAR TO THE TANGENT OF THE CURB RADIUS FOR THE DESIGNATED ACCESSIBLE ROUTE. BOTH LONGITUDINAL SIDES OF THE RAMP SHOULD BE THE SAME LENGTH. SKEWED RAMPS SHOULD BE AVOIDED. FLARES ARE NOT CONSIDERED PART OF PEDESTRIAN ACCESS ROUTE. DIAGONAL RAMPS SHOULD NOT BE INSTALLED WHERE CURB RADII IS LESS THAN 20'(6096).
6. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT. 8.3% MAXIMUM SLOPE MAY NOT BE ACHIEVABLE DUE TO EXISTING SIDEWALK GRADE. IN RECOGNITION OF THIS, A LIMIT OF 15' (4572) FOR REMOVAL SHALL BE USED UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. SAW CUT REQUIRED FOR DUMMY JOINTS SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK RAMP" OR "CONCRETE SIDEWALK".
7. EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' (3658) UNLESS OTHERWISE NOTED.
8. CONCRETE SIDEWALK RAMPS, SHALL BE PAID FOR UNDER THE ITEM "CONCRETE SIDEWALK RAMP", AS DEFINED BY THE CONSTRUCTION LIMITS ON THE PLANS AND SHALL BE FIELD VERIFIED.
9. SIDEWALK RAMPS SHALL BE CONSTRUCTED WITH THE TOE AT THE GUTTER CAST INTEGRALLY WITH RAMP UNLESS DIRECTED OTHERWISE BY THE ENGINEER (SEE TYPICAL SECTION ON SHEET 3). CURB REMOVAL AND CAST IN PLACE CURBING REQUIRED FOR THE RAMP, SHALL BE INCLUDED WITH PAY ITEM "CONCRETE SIDEWALK RAMP". CURBING OUTSIDE LIMITS OF RAMP OR LANDING SHOWN ON SHEET 3 SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
10. PREFERRED LOCATION TO INSTALL DETECTABLE WARNING STRIP SHALL BE 6" (152) FROM THE EDGE OF ROAD ALONG THE FULL WIDTH OF THE RAMP. FOR ALTERNATE LOCATIONS, REFER TO DETECTABLE WARNING PLACEMENT DETAILS ON SHEET 4.
11. TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID IN THE DIRECTION OF RUNNING SLOPE (PERPENDICULAR TO CURB OR SLOPE BREAK). THE TRANSITION FROM RAMP TO GUTTER SHALL BE FLUSH WITHOUT A LIP.
12. WHERE COMMERCIAL DRIVEWAYS ARE PROVIDED WITH TRAFFIC SIGNALS AND THE SIDEWALK IS CONTINUOUS THROUGH DRIVEWAY, DETECTABLE WARNINGS ARE REQUIRED AT THE JUNCTION BETWEEN THE PEDESTRIAN ROUTE AND DRIVEWAY.
13. CONSTRUCT A SIDEWALK CURB WHEN THERE IS INSUFFICIENT BUFFER AVAILABLE TO GRADE OR WHEN CALLED FOR IN PLANS. PAID FOR WITH SIDEWALK RAMP WHEN REQUIRED FOR RAMP.
14. THE TOP AND BOTTOM OF RAMPS SHOULD BE PROVIDED WITH A 4'x 4'(1219 x 1219) MINIMUM LEVEL LANDING AREA WITH A CROSS SLOPE LESS THAN OR EQUAL TO 2% IN ANY DIRECTION.
15. UTILITY POLES, LUMINAIRE, PEDESTRIAN OR SIGNAL POLES, GRATES, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON RAMPS, LANDINGS, BLENDED TRANSITIONS, AND @ GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
16. APPROACH SIDEWALK WIDTHS, GRASS STRIP OR UTILITY STRIP WIDTHS MAY VARY.
17. APPROACH SIDEWALK AND LANDING CROSS SLOPE SHALL NOT EXCEED 2%.
18. THE RUNNING OR CROSS SLOPES ON LANDINGS AT MID BLOCK CROSSING MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.
19. FOR PERPENDICULAR CURB RAMPS A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE TOP OF CURB RAMP. WHERE THE LEVEL LANDING IS RESTRICTED AT THE BACK OF SIDEWALK THE LEVEL LANDING SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.
20. FOR PARALLEL CURB RAMPS, A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE BOTTOM OF CURB RAMP. IF THE LEVEL LANDING IS RESTRICTED ON 2 OR MORE SIDES, THE LEVEL LANDING SHALL BE 4'(1.2m)x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
21. WHEN WIDTH OF SIDEWALK IS ≥48" AND A PERPENDICULAR SIDEWALK RAMP IS INSTALLED, THE FLARED SIDES SHALL BE 10% MAX. IF WIDTH OF SIDEWALK IS <48" THE FLARED SIDES MUST NOT EXCEED 8.33% (12:1).
22. SHADED AREAS ARE TYPICAL PAY LIMITS FOR CONCRETE SIDEWALK RAMP BUT, MAY VARY AS DIRECTED BY THE ENGINEER.
23. OPTIONAL RAMP, WHEN REQUIRED, SHALL BE PAID FOR AS PART OF CONCRETE SIDEWALK RAMP.

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| 1 | 7/13 | Created new sheets (4 total). | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/17/2014

DESIGNER/DRAFTER: MGB/EMK

CHECKED BY: LLF

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SIDEWALK RAMP 1_GD.dgn

SIGNATURE/ BLOCK:

OFFICE OF ENGINEERING

APPROVED BY:

PROJECT TITLE:

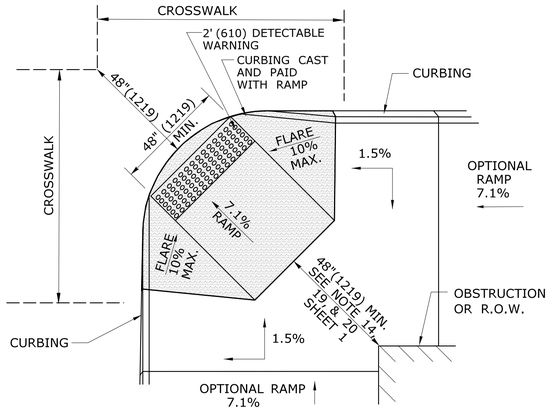
TOWN:

PROJECT NO.

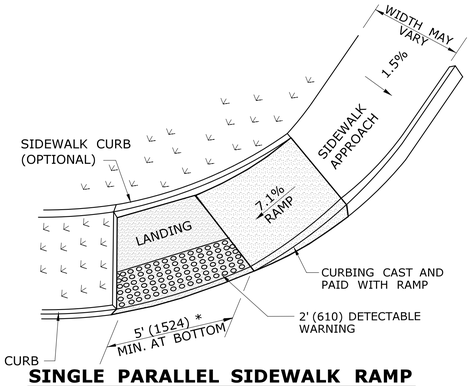
DRAWING NO.

DRAWING TITLE: SIDEWALK RAMPS SHEET 1

SHEET NO.

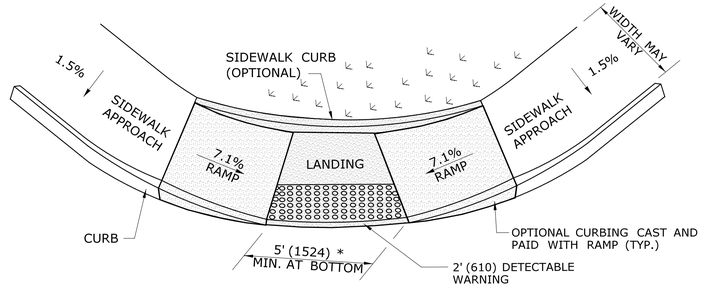



**DIAGONAL SIDEWALK RAMP (TYPE 4)**
**W/LANDING AT TOP**



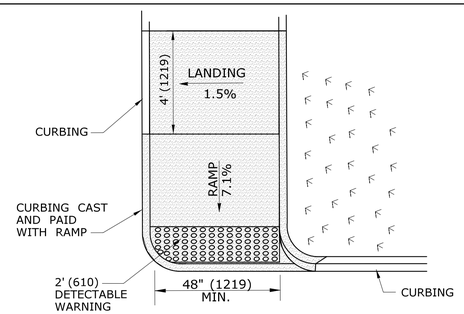

**SINGLE PARALLEL SIDEWALK RAMP**
**W/LANDING AT BOTTOM ON**
**CORNER (TYPE 4c)**

* SEE NOTE 20 SHEET 1




**DOUBLE PARALLEL SIDEWALK RAMP**
**W/LANDING AT BOTTOM ON CORNER (TYPE 4f)**

* SEE NOTE 20 SHEET 1

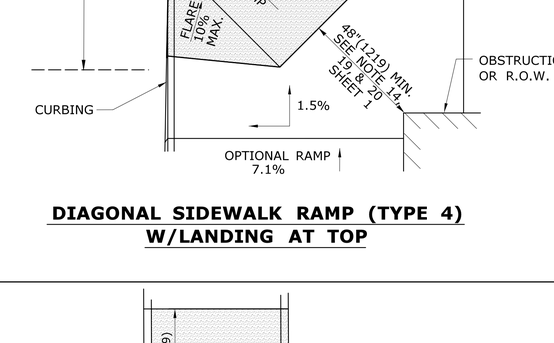



**SINGLE DIRECTION**
**PERPENDICULAR SIDEWALK RAMP**
**NO / UTILITY GRASS STRIP**
**(TYPE 4a)**



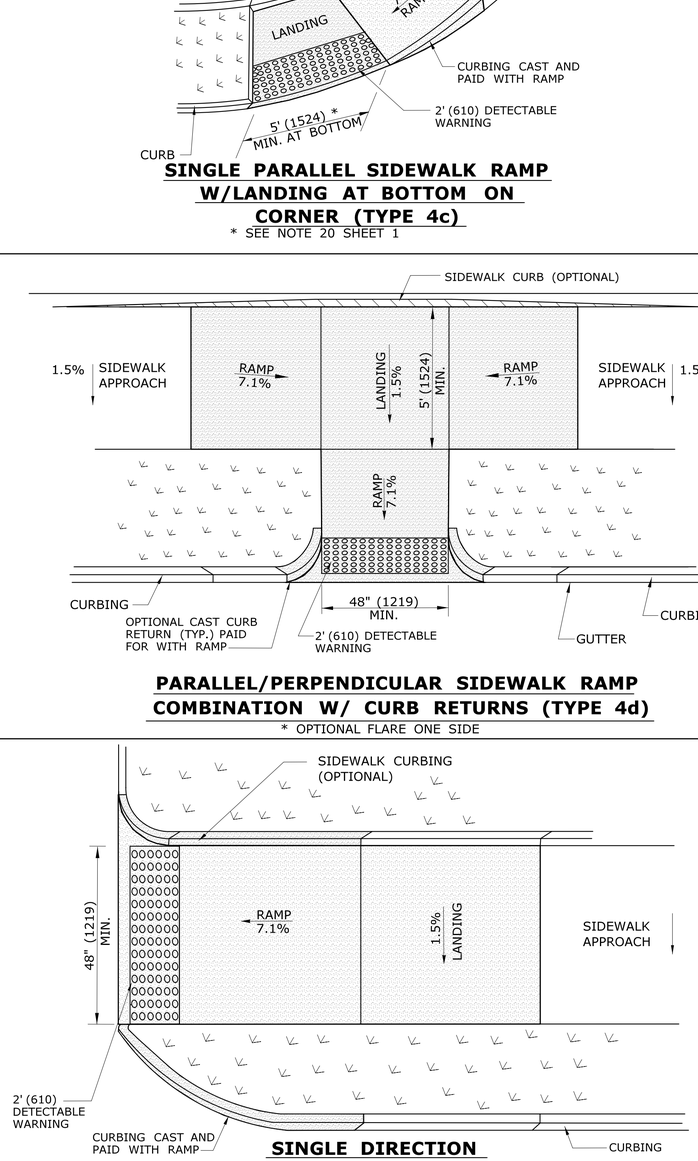

**PARALLEL/PERPENDICULAR SIDEWALK RAMP**
**COMBINATION W/ CURB RETURNS (TYPE 4d)**

* OPTIONAL FLARE ONE SIDE



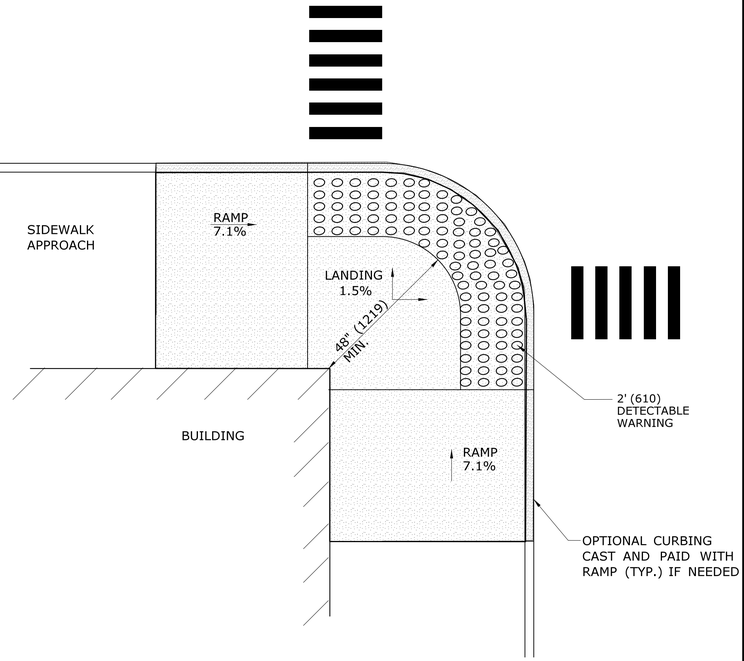

**DOUBLE DIRECTION**
**PARALLEL SIDEWALK RAMP**
**NO / UTILITY GRASS STRIP**
**(TYPE 4b)**

SEE NOTE 20 SHEET 1




**SINGLE DIRECTION**
**PERPENDICULAR SIDEWALK RAMP**
**W/ UTILITY GRASS STRIP (TYPE 4e)**

REFER TO DETECTABLE WARNING PLACEMENT ON SHEET 4




**RESTRICTED CONDITION**
**DIAGONAL SIDEWALK RAMP**
**(TYPE 4g)**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/27/2014

DESIGNER/DRAFTER: **MGB/EMK**
CHECKED BY: **LLF**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\SIDEWALK RAMP 2_GD.dgn

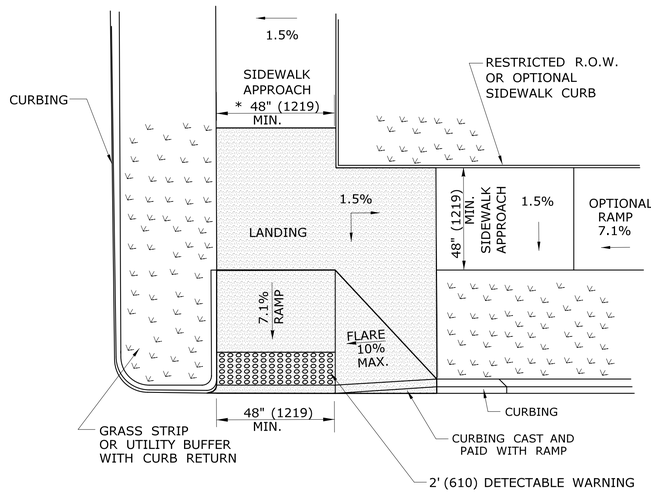
SIGNATURE/ BLOCK:
**OFFICE OF ENGINEERING**
APPROVED BY:

PROJECT TITLE:

TOWN:

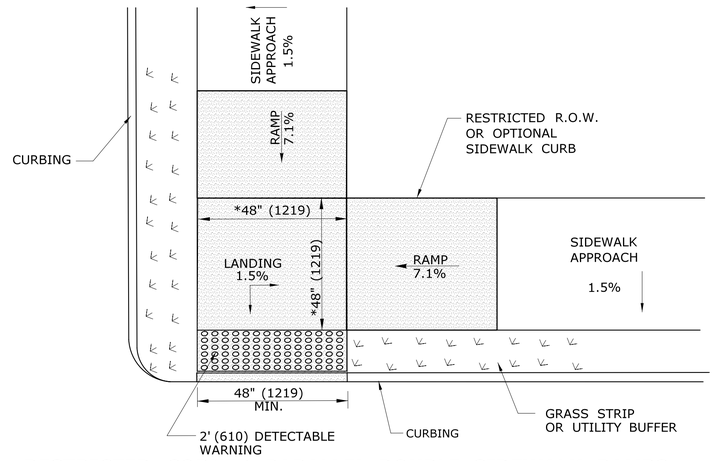
DRAWING TITLE:
**SIDEWALK RAMP SHEET 2**

PROJECT NO.
DRAWING NO.
SHEET NO.



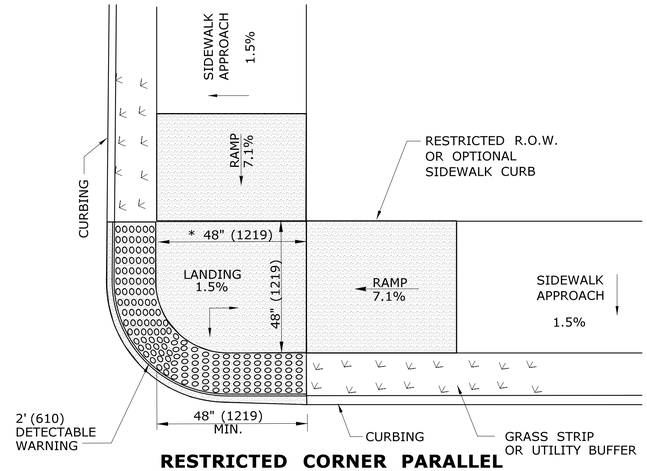

**RESTRICTED CORNER PERPENDICULAR SIDEWALK RAMP (TYPE 5)**

* SEE NOTE 19 SHEET 1



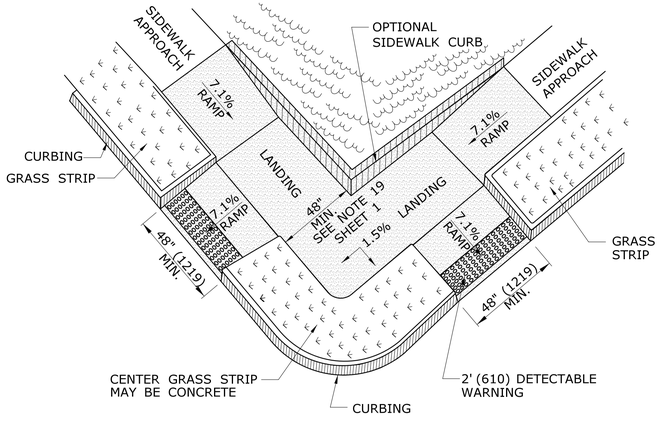

**RESTRICTED CORNER PARALLEL DOUBLE SIDEWALK RAMPS W/CENTER LANDING AND UTILITY GRASS STRIP (TYPE 5a)**

* SEE NOTE 20 SHEET 1



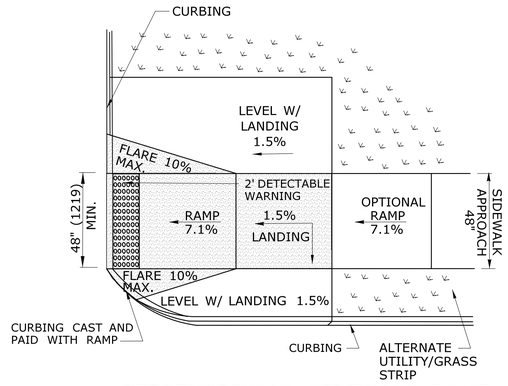

**RESTRICTED CORNER PARALLEL SIDEWALK RAMPS W/ CENTER LANDING TWO DIRECTION AND UTILITY GRASS STRIP (TYPE 5b)**

* SEE NOTE 20 SHEET 1

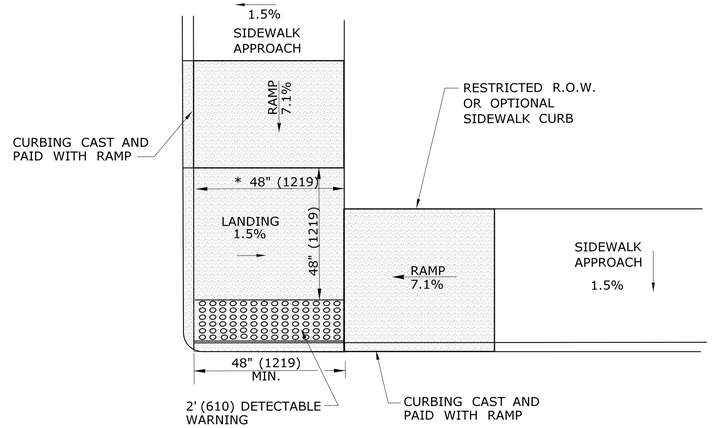



**COMBINATION SIDEWALK RAMP (TYPE 6)**

* SEE NOTE 19 SHEET 1

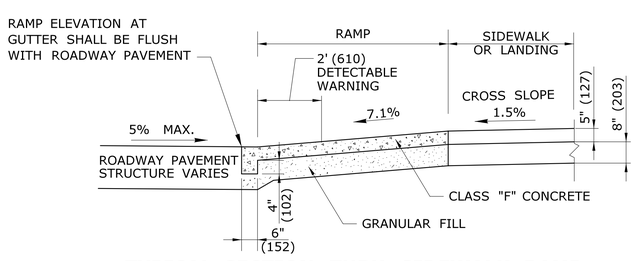



**PERPENDICULAR SIDEWALK RAMP ONE DIRECTION ON CORNER (TYPE 6a)**



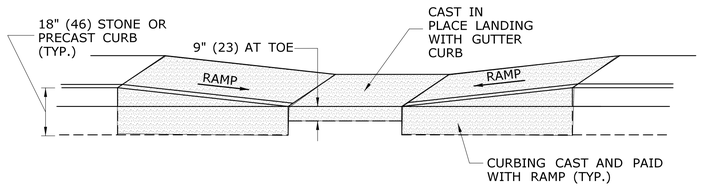

**RESTRICTED CORNER PARALLEL SIDEWALK RAMPS W/CENTER LANDING NO GRASS STRIP (TYPE 5c)**

* SEE NOTE 20 SHEET 1

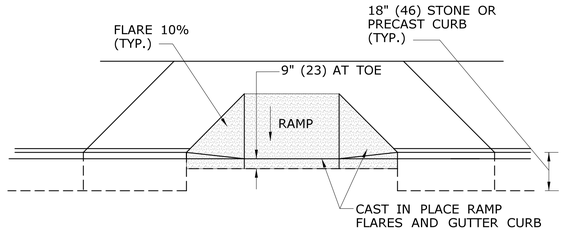



**TYPICAL SECTION THRU SIDEWALK RAMP**

SEE NOTE 2 AND 17 SHEET 1




**TYPICAL ELEVATION PARALLEL SIDEWALK RAMP WITH CAST IN PLACE GUTTER**




**TYPICAL ELEVATION PERPENDICULAR SIDEWALK RAMP WITH CAST IN PLACE GUTTER**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/27/2014

DESIGNER/DRAFTER: MGB/EMK

CHECKED BY: LLF

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SIDEWALK RAMP 3_GD.dgn

SIGNATURE/BLOCK: OFFICE OF ENGINEERING

APPROVED BY:

PROJECT TITLE:

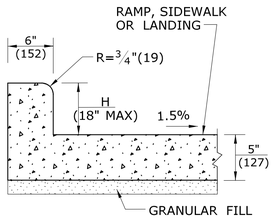
TOWN:

PROJECT NO.

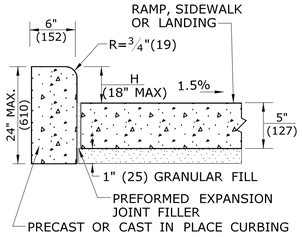
DRAWING NO.

DRAWING TITLE: SIDEWALK RAMP SHEET 3

SHEET NO.

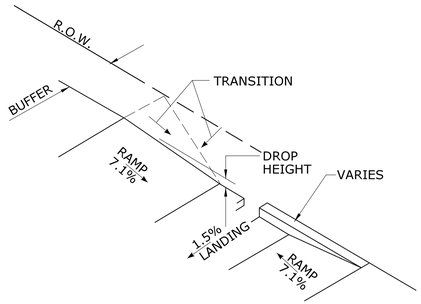



**MONOLITHIC CAST CURB**

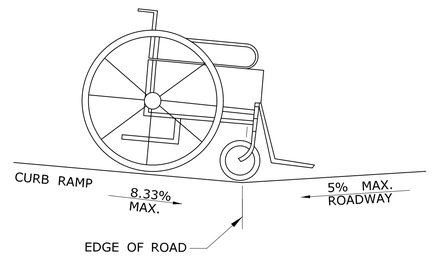



**SEPARATELY CAST CURB**

**SIDEWALK CURB OPTIONS AT BACK OF SIDEWALK**



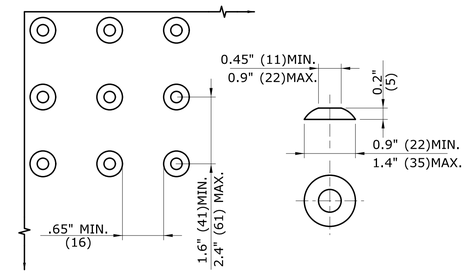

**BACK OF SIDEWALK CURB OR BUFFER TRANSITION**




**DETAIL 1**
**SEE GRADE CHANGE AT ROADWAY INTERFACE**
SEE NOTE 1 SHEET HW-921 02a

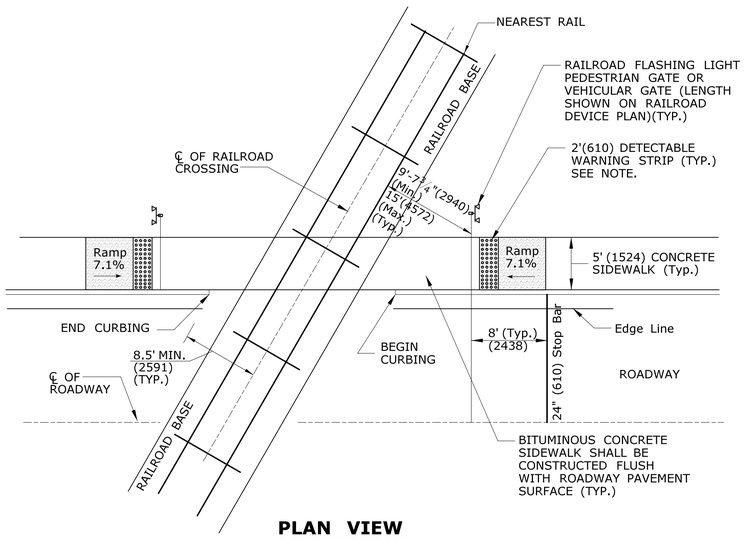
## GENERAL NOTES:

1. RAMPED MEDIANS SHALL HAVE A CURB RAMP AT EITHER END AND LEVEL LANDING A MINIMUM OF 5' x 5' (1.5m x 1.5m) IN BETWEEN. CUT-THROUGH MEDIANS SHALL BE A MINIMUM OF 6' (1.8m) LONG AND 5' (1.5m) WIDE. FOR ALL MEDIANS, CUT-THROUGH OR RAMPED, A 2' (610) STRIP OF DETECTABLE WARNINGS SHALL BE INSTALLED AT THE ENTRANCE AND EXIT.
2. SEE GENERAL NOTES ON SHEET 1.

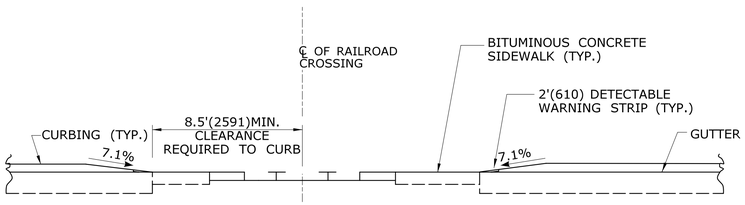



**DOME SPACING** **DOME SECTION**

**STANDARD DOME ON DETECTABLE WARNING TILES**



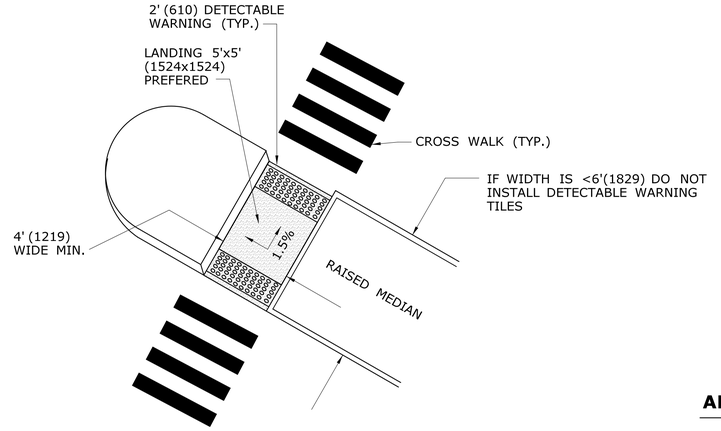

**PLAN VIEW**



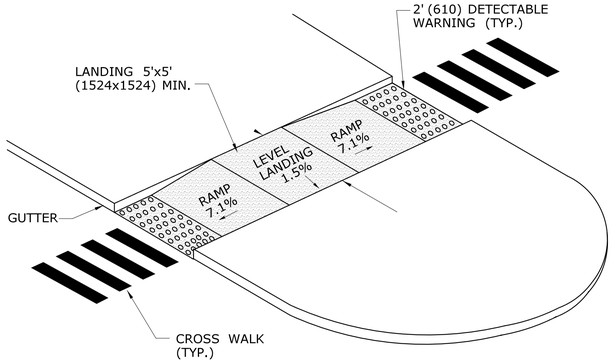

**ELEVATION VIEW**

**DETECTABLE WARNINGS AT RAILROAD CROSSING**

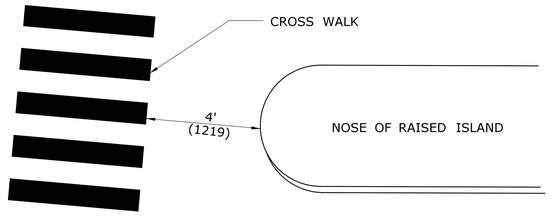
NOTE: WHEN NO GATE IS PRESENT, INSTALL DETECTABLE WARNING SURFACE 12' (3.6m) FROM THE NEAREST RAIL. IF GATE IS PRESENT, INSTALL DETECTABLE WARNING 2' (610) PRIOR TO GATE. THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE INSTALLED PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL.



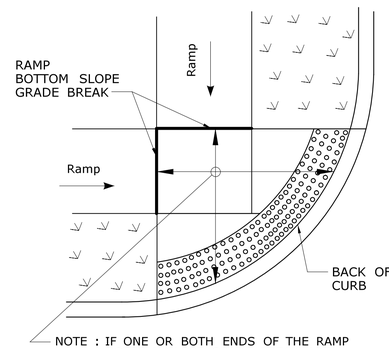

**CUT-THROUGH MEDIAN ISLAND**




**RAISED MEDIAN ISLAND WITH LANDING AND RAMPS**



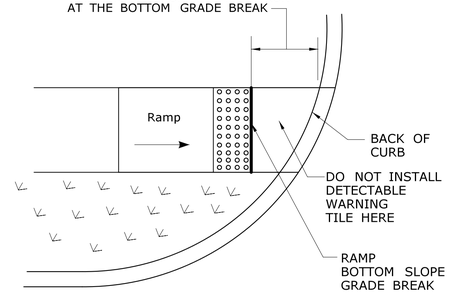

**ALTERNATE CROSSWALK WITH MEDIAN ISLAND PULLED BACK**




NOTE : IF ONE OR BOTH ENDS OF THE RAMP BOTTOM SLOPE GRADE BREAK ARE GREATER THAN 5' (1.5m) FROM BACK OF CURB, PLACE DETECTABLE WARNING TILE ON THE LOWER LANDING AT BACK OF CURB ALONG FULL WIDTH.

**DETECTABLE WARNING PLACEMENT DETAIL 1**

NOTE : IF BOTH ENDS OF THE RAMP BOTTOM SLOPE GRADE BREAK ARE LESS THAN 5' (1.5m) FROM BACK OF CURB, PLACE DETECTABLE WARNING TILE ON THE RAMP RUN AT THE BOTTOM GRADE BREAK




**DETECTABLE WARNING PLACEMENT DETAIL 2**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/27/2014

DESIGNER/DRAFTER: MGB/EMK
CHECKED BY: LLF

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SIDEWALK RAMP 4_GD.dgn

SIGNATURE/BLOCK: OFFICE OF ENGINEERING
APPROVED BY:

PROJECT TITLE:

TOWN:

DRAWING TITLE: SIDEWALK RAMP SHEET 4

PROJECT NO.
DRAWING NO.
SHEET NO.